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ABSTRACT

The Council of Ontario Universities' 1978 brief on operating support is presented. Section I compares funding recommendations for 1978-79 put forward by the Council on Ontario Universities (COU) and the Ontario Council on University Affairs (OCUS) with the provisions made for that year by the Minister of College and Universities (MCU). Section 2 discusses the funding requirements for 1979-80 according to the guidelines established for system funding by OCUA. Section 3 addresses the cumulative effect of the government's program of fiscal restraint through the years 1978-79 through 1981-82. (Author/SPG)

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ED154649

BRIEF TO THE

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

# THE PRICE OF RESTRAINT

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Prepared by the

COU Committee on Operating Grants

Council of Ontario Universities
Conseil des Universites de l'Ontario

February, 1978
78-1

BRIEF TO THE

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

# THE PRICE OF RESTRAINT

Prepared by the

COU Committee on Operating Grants

Council of Ontario Universities
Conseil des Universités de l'Ontario
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February, 1978
78-1

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COUNCIL OF ONTARIO UNIVERSITIES
CONSEIL DES UNIVERSITÉS DE L'ONTARIO

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February 21, 1978

Dr. W.C. Winegard
Chairman
Ontario Council on University Affairs
801 Bay Street
2nd Floor
Toronto, Ontario

Dear Dr. Winegard:

On behalf of the Council of Ontario Universities, I am pleased to transmit to you our 1978 brief on operating support to the Ontario Council on University Affairs. This brief, prepared by the COU Committee on Operating Grants, has been approved by our Council.

You should note that the brief is accompanied by a report on a university non-salary price index for Ontario, prepared with the assistance of the Committee of Finance Officers - Universities of Ontario. A second report dealing with inter-university cooperation under the sponsorship of COU, also intended to be presented with this brief on operating grants, is not yet complete. It will be forwarded as soon as it has been finalized.

Further, as has been agreed, our Council is preparing a separate brief on graduate planning for presentation later in the Spring. Work presently underway on the funding of non-credit continuing education and of in-service training for teachers will also be completed this Spring and will be forwarded to you as soon as possible.

We look forward to our meeting with OCUA on 31 March for a continuing dialogue on matters of urgent interest to the Ontario university community.

Sincerely,

Edward J. Monahan

Edward J. Monahan
Executive Director

EJM:bc

## PREFACE

Previous briefs from the Operating Grants Committee have expressed the concern that the cumulative effect of levels of funding during a substantial part of the present decade has impaired the ability of the Ontario university system to maintain levels of quality. It is the intention of the present brief to demonstrate that the university system will be underfunded in 1978-79 and that the Government's intended programme of long-term fiscal restraint, if applied indiscriminately to the university sector, will lead to substantial underfunding right through to 1981-82.

Section 1 of the present brief compares funding recommendations for 1978-79 put forward by COU and OCUA with the provisions made for that year by MCU. The Operating Grants Committee judges that the global sum provided by the government for 1978-79 will leave a maximum of 2.3% in discretionary funds available over 1977-78 budgeted figures after provisions have been made for already committed increases in expenditures. This is the amount available to meet the cost of salary increases for the last ten months of 1978-79 and to offset the impact of inflation without reducing 1977-78 base budgets.

Section 2 of this brief addresses funding requirements for 1979-80 according to the guidelines established for system funding by OCUA

several years ago. The cost of meeting the basic objectives of the system are conservatively estimated to increase by 6.9% over 1978-79 levels. It should be particularly noted that no provision is made in our advice for 1979-80 funding levels to redress the serious underfunding implicit in the Government's announced funding for 1978-79.

Section 3 of this brief addresses the cumulative effect of the Government's programme of fiscal restraint through the years 1978-79 to 1981-82. The Operating Grants Committee concludes that the health of the Ontario university system will be seriously jeopardized if no significant improvement in levels of revenue through this period is achieved.

Readers of this brief should bear in mind one final prefatory remark. The brief focusses attention only on the implications for the "system" of these funding levels, as though the Ontario university system were a monolith in which each part shared equally in the well-being of the whole. But clearly this is not the case for member institutions of COU. Ontario universities are at different stages of development; they have varying strengths and weaknesses. The challenges which face the system in responding to repeated levels of underfunding conjointed with declining enrolment are not the same as those facing the constituent parts. For the system it is a question of reduction in quality and range of academic services; for some universities it could be a matter of survival.

## 1.0 BACKGROUND ON FUNDING

### 1.1 Level of Funding for 1978-79

In October 1977, the Minister of Colleges and Universities announced a level of funding for the university system in 1978-79 of $745.4 million. This represents an increase over 1977-78 funding of $41.0 million or 5.8%, but does not imply an increase of 5.8% in university revenue; the overall revenue increase is much less. What follows is an attempt to clarify the revenue implications of the Minister's announcement as well as to provide a comparision of the funding approaches taken by COU, OCUA and MCU.

#### 1.1.1 Comparison between COU request and OCUA 77-III

a) Funding base:

For purposes of comparability, the basic premise of the OCUA funding base is accepted, i.e. that levels of expenditure for 1977-78 will approximately equal levels of revenue.[1] The treatment of tuition fee revenue is somewhat problematic, however, in that actual revenue may be $5.9

---

[1] The $3.4 million for repair and maintenance projects included by OCUA as "other revenue" has been increased in this analysis to $5.8 million to reflect the monies actually transferred by MCU from the Ministry's line item funds. In addition $0.4 million for the Bar Admission Course has been added to grant revenue to reflect totals used by MCU.

million less than anticipated revenue, the result of decreased enrolment counts in 1977-78. At the time that universities were preparing their 1977-78 budgets, the projected increase of 1.6% in system enrolment seemed a reasonable and prudent base on which to formulate expenditure estimates. Insofar, however, as subsequent financial models presented in this brief will have to be based on corrected figures, and insofar as the Ministry may have had at least preliminary enrolment counts available in the formulation of its funding recommendations, we have adjusted the 1977-78 funding base to take account of actual enrolment levels. Both OCUA and COU recommendations have been recalculated using this revised base.[2] The new figures are presented in Table 1-1.

3) Inflationary Trend Cost:

COU requested 6% on salaries, 8% on fringe benefits and 10% on non-salary items. OCUA recommended 6% on all items. The difference represents $8.4 million.

The Operating Grants Committee notes the reservations of OCUA in accepting higher rates of inflation in the fringe benefit and non-salary areas and refers to these matters in sections 2.2 and 2.3.

---

[2] Grants + Other Revenue + Tuition Fees = $689.6 + $60.7 + $142.0 = $892.3 million.

Table 1-i

Recalculation of OCUA and COU Funding Recommendations for 1978-79
($millions)

| | Estimated Expenditures 1977-78 | Inflationary Trend Cost 1978-79 | Existing Service Level Cost 1978-79 | Efficiency Factor (Negative) | Predicted Enrolment Costs 1978-79 | Excess Capacity Factor + or (-) | Cost of Basic Objectives 1978-79 |
|---|---|---|---|---|---|---|---|
| OCUA | | | | | | | |
| Salaries | $646.1 | $38.8 | $13.7 | ($7.0) | ($17.3) | $8.7 | $683.0 |
| Fringe Ben. | 71.3 | 4.3 | 1.2 | ( 0.8) | ( 1.9) | 1.0 | 75.4 |
| Non-Salary | 174.9 | 10.5 | 4.6 | ( 1.9) | ( 4.7) | 2.4 | 185.8 |
| Total | $892.3 | $53.6 | $19.8 | ($9.7) | ($23.9) | $12.1 | $944.2 |
| COU | | | | | | | |
| Salaries | $646.1 | $38.8 | $13.7 | ($1.4) | ($17.4) | $8.7 | $688.5 |
| Fringe Ben. | 71.3 | 5.7 | 2.1 | ( 0.2) | ( 2.0) | 1.0 | 77.9 |
| Non-Salary | 174.9 | 17.5 | 4.8 | ( 0.4) | ( 4.9) | 2.5 | 194.4 |
| Total | $892.3 | $62.0 | $20.6 | ($2.0) | ($24.3) | $12.2 | $960.8 |

c) Existing Service Level:

COU requested 2% on salaries for progress through the ranks, 2.7% on fringe benefits for PTR and 2.5% for furniture and equipment replacement. OCUA concurred with the exception of providing 2.0% on fringe benefits. The difference represents $0.8 million. These matters are dealt with in sections 2.4, 2.2 and 2.5 respectively.

d)

Efficiency Factor (Negative):

COU requested a productivity discount of 0.2%. OCUA continued its discount of 1.0%. The difference represents

$7.7 million.

The Operating Grants Committee notes the attention given to this matter in Advisory Memorandum 77-III and commends to the attention of OCUA Section 2.6 of the present brief.

e) Predicted Enrolment Costs:

Both COU and OCUA concurred on the likelihood of a 1.6% increase in enrolment for the current year. In view of the decrease of ? 5% actually experienced by the university system, and for purposes of comparison with the Ministry's recommended funding level, actual enrolments have been used in the model presented in Table 1-1.

Both agencies concurred with the discounting of enrolment variation by 50%.

f) Cost of Basic Objectives:

Taking into account all of the revisions cited above, COU requested an overall increase of $68.5 million or 7.7% on a funding base of $892.3 million. OCUA recommended an increase of $51.9 million or 5.8%.

g) Cost to the Government:

Tuition fee revenue for 1978-79 can now be estimated at $138.9 million based on a further projected decrease of 2.2% in enrolment (see section 2.7). It is assumed that other revenue will remain constant at $60.7 million. The cost to the

government of COU's recommendations would therefore have been $761.2 million. The comparable figure for OCUA's advice would have been $744.6 million. The former would represent a 10.4% increase and the latter an 8.0% increase over the cost to the government in 1977-78 of $689.6 million.

1.1.2 The Ministry's Provision for 1978-79

a) Comparison between 1977-78 and 1978-79:

| | 1977-78 | 1978-79 |
|---|---|---|
| Provided by Ministry for distribution by OCUA | $689.6 | $736.4 |
| Ministry Line Item Grants | 14.8* | 9.0 |
| | $704.4 | $745.4 |

*Includes $1.3 million for job creation projects.

The increase in total government funding is $41.0 million or 5.8%. The increase in funds available for distribution by OCUA (excluding the $5.8 million transferred from line item grants) is similarly $41.0 million or 5.9%. Because of an anticipated decrease in tuition fee revenue in 1978-79, total operating revenue available to the system will increase by only $37.9 million, from $892.3 million to $930.2 million. This represents an increase of 4.2%.

b) Comparison of COU, OCUA and MCU results:

| | COU | OCUA | MCU |
|---|---|---|---|
| Cost of Basic Objectives | $960.8 | $944.2 | $930.2 |
| $ Increase over 1977-78 | $ 68.5 | $ 51.9 | $ 37.9 |
| % Increase over 1977-78 | 7.7% | 5.8% | 4.2% |
| Increase in MCU funding | 10.4% | 8.0% | 5.9% |

Thus the shortfall in revenue for 1978-79 will be of the order of $30.6 million or 3.2% by comparison to what COU defined as essential in order to maintain the existing quality of the system.

1.2 The Implications of the 1978-79 Funding Level

Section 1.1 of the present brief demonstrates the availability of an additional $37.9 million revenue for 1978-79 over 1977-78 revised funding levels of $892.3 million. This represents an increase of 4.2%.

In preparing budgets for the 1978-79 fiscal year, however, the universities must note that certain commitments are already present in their fiscal infrastructure which will reduce the amount which can be subject to discretionary allocations. Most notable among these commitments is the cost of providing for 1977-78 salary increases for continuing members of staff during the first two months of the 1978-79 fiscal year.

These additional costs would accrue even were there to be no provision for salary increases in 1978-79. Including the fringe benefit implications of these salary increases the costs of committed increases related to salary carry-forward are approximately $11.0 million. Further in the area of compensation, institutions have identified additional pension liabilities of $1.0 million for 1978-79.

Among the remaining non-salary expenditures, the assumption is made that, despite rates of inflation substantially above the level of new funds available, universities will be forced to absorb the additional impact of inflation. For purposes of the present exercise, one exception is made to this general rule. During the past several years, efforts at energy conservation have been remarkably effective; further reductions in energy consumption can be achieved only with substantially increased capital cost, and to the extent that this is the case, increased utility rates will represent unavoidable cost increases in 1978-79. These costs are estimated at approximately $5.0 million.

The sum of these items is $17.0 million and thus of the additional funds of $37.9 million available to the system only $20.9 million is available for discretionary distribution, i.e. to cover the costs of salary increases during the last ten months of 1978-79, and to provide some measure of protection against inflation in non-salary areas. This represents an increase of 2.3%.

A final consideration relates to the fact that budgeted expenditure for 1977-78 assumed tuition fee revenue of $5.9 million in excess of actual levels. Undoubtedly, universities have attempted to reduce current budgets to compensate for this revenue loss. However, the reduction of budgeted expenditure, midway through the fiscal year and after staff commitments have been made, can present real problems. Should institutions be able to adjust expenditure to compensate fully for this mid-year loss in revenue, then funds available for discretionary increase in 1978-79 will remain at the 2.3% cited above. Should they have been totally unable to adjust in 1977-78, additional discretionary funds for 1978-79 would be reduced to 1.7%. Undoubtedly, the real figure lies somewhere in between.

## 1.3 Interprovincial comparisons

The COU operating grants briefs for each of the last two years have made reference to the position of Ontario in a ranking of provincial operating grants per FTE university student. The Committee continues to believe that such comparisons provide valuable points of reference. They reflect the priority which the Ontario government accords to our university system compared

with that which is accorded to the system in other provinces. They also graphically portray the improvements or deteriorations in university funding which are occurring in Ontario relative to a Canadian average which is influenced by our national economic situation and a variety of provincial economic and social policies. We therefore welcome the initiatives which have led to the establishment of the Tripartite Committee on Interprovincial Comparisons (comprised of representatives from COU, OCUA and MCU) and we await with interest the report of the committee.

We recognize that the data and methodology of previous years contain assumptions which have not been tested. We anticipate, however, that the assumptions will prove to be sufficiently correct that the general conclusions which we have drawn will be substantiated. Without wishing to prejudge the Tripartite Committee's report, we have updated the work of previous years and our results are presented in Table 1-2. It will be seen that the position held by Ontario universities in 1976-77 did not change significantly from that of the previous year. Two rankings are provided for the first time for 1976-77. One, which is comparable with previous years' rankings, is based on operating grant revenue alone; the other and new ranking is based on combined operating grant and tuition fee revenue. For Ontario, the ranking remains the same, whatever basis is used.

Table 1-2

Provincial Operating Grants and Tuition Fee Revenue per FTE Student

| | 1973-74[1] Rank | 1975-76[1] Rank | Provincial Operating Grants per FTE Student[2] $ | 1976-77 Rank | Provincial Operating Grants and Tuition Fee Revenue per FTE Student[2] $ | 1976-77 Rank |
|---|---|---|---|---|---|---|
| Newfoundland | 2 | 1 | 5,749 | 1 | 6,477 | 1 |
| Prince Edward Island | 10 | 7 | 3,493[3] | 9 | 4,155[3] | 9 |
| Nova Scotia | 8 | 9 | 2,990 | 10 | 3,643 | 10 |
| New Brunswick | 9 | 10 | 3,841 | 7 | 4,546 | 6 |
| Quebec | 5 | 3 | 4,888[4] | 3 | 5,438[4] | 3 |
| Ontario | 6 | 8 | 3,649 | 8 | 4,291 | 8 |
| Manitoba | 7 | 6 | 3,951 | 5 | 4,425 | 7 |
| Saskatchewan | 4 | 5 | 4,190 | 5 | 4,772 | 5 |
| Alberta | 3 | 4 | 4,645 | 4 | 5,220 | 4 |
| British Columbia | 1 | 2 | 5,445 | 2 | 5,964 | 2 |
| Canada | | | 4,103 | | 4,709 | |
| Canada excluding Ontario | | | 4,561 | | 5,130 | |

1. Foundation for an Uncertain Future: The Operating Base. Brief to the Ontario Council on University Affairs, COU, May 1977.
2. Calculated from Financial Statistics and Statistics Canada (USIS) data for those institutions for which corresponding data are available from the two sources at the time of preparation of this table.
3. USIS enrolment data not available. Statistics Canada projections utilized.
4. Quebec figures for 1976-77 are unreliable due to the large number of non-reporting institutions.

In previous year's briefs we have shown that Ontario ranked third in the nation with respect to per student grant revenue during the early years of the present decade. Clearly our position has declined substantially since that time. Most recent figures indicate that Ontario now stands some $900 below grant revenue per FTE student for the rest of Canada. The inclusion of tuition fee revenue reduces this difference to $850. We therefore reiterate our conclusion of last year, viz. that maintenance of per student revenue in Ontario at a level significantly below that of the rest of Canada will undoubtedly have long term implications on the quality of higher education in this province.

## 2.0 SYSTEM REQUIREMENTS FOR 1979-80

### 2.1 The impact of inflation on salaries

Projections for inflation and increases in average salary levels for 1979-80 are difficult to develop and are inherently unreliable. To a large extent, the economic climate of the first few years of the next decade will be determined by the successes and failures of the immediate post-control period. In the absence of reliable indicators, we are assuming what we believe to be a conservative figure of 6% per year as the estimated level of inflationary increase on salaries in the Ontario university sector.

In our 1975 brief, Equity for Ontario's Universities, we stated as one of the primary funding objectives that of "maintaining equitable salary levels for university personnel". We continue to hold this as a major objective and would be concerned over any judgement that university faculty and staff should accept salaries that place them behind comparable groups. Such a judgement would not be a reasonable expectation since university faculty and staff are entitled to adequate compensation for their services as measured, among other criteria, by the salary levels of comparable groups of professionals and other employees.

## Table 2-1

## An Index of Average Salary Levels

| Profession | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|
| Consumer Price Index [1] | 100 | 103.9 | 109.2 | 118.9 | 132.5 | 145.8 | 155.7 |
| Federal Govt. Employees - (All Employees) [2] | 100 | 123.8 | 135.1 | 152.9 | 176.0 | 207.3 | 229.5 |
| Federal Govt. Employees - Executive, Scientific &Professional (Metro Areas only) [2] | 100 | 105.0 | 113.6 | 125.3 | 143.9 | 154.1 | N/A |
| Chemists [3] | 100 | N/A | 117.7 | 128.5 | 153.3 | 158.4 | N/A |
| Professional Engineers [4] | 100 | 104.8 | 123.1 | 135.5 | 152.1 | 169.3 | 181.8 |
| Teachers, Level 1 [5] | 100 | 102.9 | 105.4 | 111.8 | 122.9 | 149.0 | 166.6 |
| Teachers, Level 4 [5] | 100 | 102.7 | 105.1 | 111.6 | 122.2 | 145.0 | 160.5 |
| Nurses [6] | 100 | 104.2 | 113.0 | 147.0 | 184.9 | 210.7 | 235.0 |
| Provincial Asst. Deputy Ministers [7] | 100 | 105.3 | 115.9 | 121.3 | 137.0 | 144.4 | N/A |
| Ontario University Faculty [8] | 100 | 104.4 | 110.4 | 118.1 | 129.2 | 145.3 | 161.5 [9] |

Data on average salaries paid to the above groups have been converted to a base of 100 for 1970 or 1970-71.

1. "The Consumer Price Index". Statistics Canada: All Canada, all items, adjusted to the university fiscal year, for each year.
2. "Federal Government Employment". Quarterly Report.
   "Federal Government Employment in Metropolitan Areas". Statistics Canada.
3. "Chemistry in Canada". The Chemical Institute of Canada.
4. "Report on Engineers' Salaries". Survey of Employers' Association of Professional Engineers of Ontario.
   "Report on Membership Salary Survey of Canadian Professional Engineers". The Association of Professional Engineers of Ontario.
5. "Wage Developments in Collective Bargaining Settlements in Ontario". Research Branch, Ontario Ministry of Labour. Also data from the Ontario Secondary School Teachers' Federation based on four Boards (ie. Ottawa, Toronto, Frontenac and Hamilton).
6. Historical Salary Rates for Registered Nurses in the Province of Ontario. The Ontario Nurses Association.
7. "Public Accounts of Ontario". Salaries of Full-time Assistant Deputy Ministers, excluding the first year of a newly created position.
8. "Salaries of Full-Time Teaching Staff at Canadian Universities", Statistics Canada. Full, associate, and assistant professors only. Data for University of Toronto faculty are not available for 1970-71 and 1971-72 and that university has therefore been omitted from this index.
9. Data for University of Windsor Faculty are not available for 1976-77 and are therefore not included.

The data in Table 2-1 demonstrate that, despite beliefs to the contrary, the rate of increase of faculty salaries during the present decade has not been out of line with that experienced by other professionals.

Comparable data regarding the salary levels of non-academic staff are not available, but studies carried out for certain Ontario universities by Hay Associates Canada Ltd. show that in the period between 1972 and 1976 management salaries within these universities have declined slightly with respect to comparable groups in industry. We are certain that, were comparable data available on the salaries of other non-academic staff, they would show the same trend as has been described for academic salary levels.

## 2.2 Increase in the cost of benefits

Table 2-2 shows the total cost of benefits over the three years 1975-76 to 1977-78. The actual 1976-77 increase of 19.6% is very close to the 18.8% increase in the cost of benefits which was predicted in last year's brief from mid-year estimates. Estimates for 1977-78 indicate an 9.3% increase compared with the

previous year. Rate increases and eligibility changes in dental plans, eligibility changes and changes to employer contributions to long term disability insurance, a number of changes to life insurance plans, and a gamut of miscellaneous changes to other benefits account for the increase. Indeed, it is clear from the survey results that there is no pattern at all in the reasons for increases in the cost of benefits. We are therefore predicting that benefit costs will increase at the same rate as total salary and wage expenditures for 1979-80.

The benefit packages of Ontario universities are not identical. We have therefore derived a composite benefit package which we feel to be representative of a typical Ontario university. Figure 2-1 compares this hypothetical benefit package to those offered to employees of a typical metropolitan borough and to employees of the Ontario government. The Borough of North York was chosen as representative of municipal governments. In fact, benefits for municipal staff are relatively uniform in the Toronto area. It is apparent from the results of our study that university benefits fall below the level provided to government employees.

Table 2-2

Comparison of Fringe Benefit Costs, 1975-76, 1976-77 and 1977-78

| | 1975-76 ($000's) | 1976-77 ($000's) | Increase Between 1975-76 & 1976-77 $ ($000's) | Increase Between 1975-76 & 1976-77 % | 1977-78[1] ($000's) | Increase Between 1976-77 & 1977-78 $ ($000's) | Increase Between 1976-77 & 1977-78 % |
|---|---|---|---|---|---|---|---|
| Total Salaries | 525,344[2] | 587,476 | 62,132 | 11.8 | 645,147 | 57,671 | 9.8 |
| Pension: Current Service | 29,106 | 33,504 | 4,398 | 15.1 | 36,366 | 2,862 | 8.5 |
| Group Life | 2,856 | 3,383 | 527 | 18.5 | 3,937 | 554 | 16.4 |
| Long Term Disability | 1,287 | 1,646 | 359 | 27.9 | 1,927 | 281 | 17.1 |
| Dental | 410 | 907 | 497 | 121.2 | 1,304 | 397 | 43.8 |
| OHIP | 4,094[2] | 5,918 | 1,824 | 44.6 | 6,229 | 311 | 5.3 |
| Canada Pension | 5,001 | 5,575 | 574 | 11.5 | 6,212 | 637 | 11.4 |
| Workman's Compensation | 757 | 968 | 211 | 27.9 | 1,028 | 60 | 6.2 |
| Unemployment Insurance | 6,159 | 7,353 | 1,194 | 19.4 | 7,661 | 308 | 4.2 |
| Other | 1,264 | 1,660 | 396 | 31.3 | 1,886 | 226 | 13.6 |
| Subtotal | 50,934 | 60,914 | 9,980 | 19.6 | 66,550 | 5,636 | 9.3 |
| Experience Deficiency | 2,792[2] | 2,724 | (68) | (2.4) | 2,675 | (49) | (1.8) |
| Past Service Liability | 2,825[2] | 2,442 | (383) | (13.6) | 2,753 | 311 | 12.7 |
| Total Benefits | 56,551 | 66,080 | 9,529 | 16.9 | 71,978 | 5,898 | 8.9 |

1. Sum of university estimates
2. Minor adjustments have been made to the figures contained in last year's brief

Figure 2-1

Comparison of Funded Staff Benefits Offered in the Second Half of 1977

| Benefit | "Typical" University[1] | Ontario Civil Service Commission | Borough of North York |
|---|---|---|---|
| Life Insurance | -Employer pays 75% of premium.<br>-Compulsory participation.<br>-Amount optional at 1X, 2X or 3X annual salary.<br>-All full-time faculty eligible upon appointment.<br>-All full-time staff eligible after period of probation. | Basic: Employer pays 100% of premium.<br>-Each employee covered to 3/4 of annual salary or $10,000, whichever is greater.<br>Supplementary: Voluntary.<br>-Employee pays 100% of premium.<br>Dependant: Voluntary.<br>-Employee pays 100% of premium. | -Employer pays 50% of premium.<br>-2 X annual salary to max of $100,000. |
| OHIP | -Employer pays 66% of premium. | -Employer pays 100% of premium. | -Employer pays 100% of premium. |
| Supplementary Health and Hospital Insurance | -Employer pays 80% of premium.<br>-$25 and $50 deductible.<br>-100% co-insurance after deductions. | -Employer pays 100% of premium.<br>-No deductible.<br>-90/10 co-insurance on prescribed drugs. | CUMBA Supplementary and Extended Health Care.<br>-Employer pays 100% of premium.<br>-Voluntary. |
| Dental Plan | -Employer pays 100% of premium.[2] | None. | -Employer pays 100% of premium. |
| Pension Plan | -Employer contributes 8.1%.<br>-Employee contributes 6% less CPP.<br>-1.5% of average of best 5 years of earnings multiplied by years of service reduced by 1/35 of participants' annual CPP bene[illegible] | PSSF<br>-Employer contributes 7% and absorbs administration costs.<br>-Employee contributes 6% of annual salary.<br>-2% of average of best 5 years annual earnings multiplied by number of years service (max 35 years) reduced by CPP benefits. Indexed to CPI up to 8% per year. | OMERS<br>-Employee and employer contribute 7% of employee's salary to $9,300.<br>-Employee and employer contribute 5.5% of employee's salary over $9,300.<br>-2.2% of contributory earnings, reduced by CPP benefits, plus compounded plan adjustments. Not indexed. |
| Long Term Disability | -Employer pays 41% of premium.<br>-Benefit level is 73% of salary.<br>-Compulsory participation for all full-time faculty and staff. | -Employer pays 85% of premium.<br>-Benefit level is 66 2/3 of gross salary less total of other disability benefits. | -Employer pays 100% of premium.<br>-Benefit level is 75% of basic salary (max $2,000/month). |

1. A "typical" university benefit package has been derived from analysis of 1977 benefit packages at a number of Ontario universities using a rough weighting according to size.
2. Only a minority of total university staff are covered by a dental plan.

## 2.3 Non-Salary Cost Increases

As was noted in its brief to OCUA last year, the Operating Grants Committee asked the Committee of Finance Officers - Universities of Ontario to create a task force to develop an Ontario university price index for non-salary items. A first report from that task force entitled "University Non-Salary Price Index for Ontario" is a companion volume to the present brief.

The task of developing a non-salary price index was originally conceived as a two stage operation:

1) To develop a price index within which the impact of inflation on components would be measured by existing Statistics Canada indices; and
2) To verify the appropriateness of existing indices and develop new indices as necessary.

The appended report falls somewhere between these two stages. In certain areas, e.g. library acquisitions, Canadian indices were unavailable and alternative measures of inflation had to be found. In other areas, e.g. energy, it was readily apparent that existing indices grossly understated the rate of price increase experienced by universities. Both the Operating Grants Committee and COFO-UO are aware of other instances in which the university non-salary price index now being presented is understating the

rate of inflation. The two agencies therefore commit themselves to further refinement of the index for presentation next year.

Notwithstanding the general caveat that the Ontario university non-salary price index as presently cast may understate recent rates of inflation, the Operating Grants Committee feel confident that the system now has a significantly better measure of non-salary inflation than has heretofore been available. Table 2-3 presents the results of work on this matter.

Table 2-3

Ontario University Non-Salary Price Index

| Fiscal Year ending April 30 | OUNSPI 1970-71=100 | CPI 1970-71=100 | OUNSPI Annual % Change | CPI Annual % Change |
|---|---|---|---|---|
| 1970-71 | 100.0 | 100.0 | | |
| 1971-72 | 104.9 | 103.9 | 4.9 | 3.9 |
| 1972-73 | 109.2 | 109.2 | 4.1 | 5.1 |
| 1973-74 | 121.1 | 118.9 | 10.9 | 8.9 |
| 1974-75 | 143.9 | 132.5 | 18.8 | 11.4 |
| 1975-76 | 162.6 | 145.8 | 13.0 | 10.0 |
| 1976-77 | 177.1 | 155.7 | 8.9 | 6.8 |
| 1977-78 (forecast) | 193.0 | 168.6 | 9.0 | 8.3 |

The Operating Grants Committee notes that during the years for which provision for inflation has been explicitly stated (i.e. the years during which the OCUA funding model has been in use) funding has been made available to cover cost increases of 7.0% and 5.0% in 1976-77 and 1977-78 respectively. The actual rate of inflation related to university non-salary expenditure was 8.9% in 1976-77 and is estimated at 9.0% for 1977-78. The cumulative effect of underfunding during these two years has given rise to a net revenue shortfall of $6.5 million in 1977-78 dollars (despite $3.5 million provided in 1977-78 for scientific equipment and library acquisitions).

Such levels of underfunding are felt throughout each institution in a way that makes it difficult to pinpoint areas of greatest qualitative impact. Two notable exceptions to this are library acquisitions and scientific equipment, where the extent of the erosion in purchasing power will make lost ground difficult to recover and where teaching activity and scholarly research suffer most directly.

For 1979-80, the Operating Grants Committee has chosen to extrapolate the difference in annual percentage increase observed between the Ontario University Non-Salary Price Index and the Comsumer Price Index. For the years for which the data are available, this difference has averaged 23.2%. Given the 6% rate of inflation projected for the CPI, the appropriate rate for non-salary items would therefore be 7.4%.

## 2.4 Progress Through the Ranks

OCUA's financing model continues to provide a 2% allowance on salaries to cover the costs of progression through the ranks and towards the job rate. In a steady state, such costs would be met by savings which accrue from staff turnover arising from the replacement at junior levels of faculty and staff retiring at senior levels. As should be apparent, the rapid growth of university personnel in the 1960's, in response to enrolment pressures, created a skewed age distribution within institutional establishments. Until such skewing has, through the passage of time, been able to work itself out of the system, provision for progress through the ranks and toward the job rate will produce a net cost.

During the past year, several of the member institutions of COFO-UO participated in a tentative examination of the actual costs of PTR. Preliminary results from this study lead one to believe that OCUA's provision of 2% closely reflects actual costs incurred. In the light of this circumstance, the Operating Grants Committee reiterates its position that this provision is adequate and recommends that it be used in the calculation of 1979-80 funding requirements.

## 2.5 Furniture and Equipment

An extract from the COFO-UO Revenue and Expenses Reports shows in Table 2-4 that the amount spent on the purchase and rental of furniture and equipment has been rising slightly, over the past five years, but dropping as a percentage of operating expenses. This indicates a decrease in the proportion of operating funds that the universities have been able to invest in furniture and equipment.

Table 2-4

Expenditure on Furniture and Equipment 1972-73 to 1976-77

| | | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|
| Furniture and Equipment | | | | | | |
| Purchase | ($ millions) | 10.5 | 10.6 | 12.3 | 14.1 | 15.2 |
| | (% of total operating) | 2.2 | 2.0 | 2.1 | 1.9 | 1.9 |
| Rental | ($ millions) | 7.9 | 8.2 | 8.2 | 9.1 | 8.4 |
| | (% of total operating) | 1.6 | 1.6 | 1.4 | 1.2 | 1.0 |
| Total | ($ millions) | 18.4 | 18.8 | 20.5 | 23.1 | 23.6 |
| | (% of total operating) | 3.8 | 3.6 | 3.4 | 3.2 | 2.9 |

Source: COFO-UO Total Revenue and Expenses Reports

Clearly, a heavy investment in furniture and equipment was made during the period of major capital expansion in the 1960's and early 1970's. The two factors of wear and obsolescence each year take their toll of this investment and create a growing liability which must one day be met. We therefore share the concern with OCUA that the provision for the replacement of furniture and equipment may be inadequate.

Four universities (Queen's, Toronto, Waterloo and Western) are conducting pilot projects, for one or more academic departments, to determine replacement needs. We hope these studies will lead to a systematic method of identifying system-wide needs. In the interim, we have used the OCUA allowance of 2.5% of non-salary costs for the cost of furniture and equipment replacement.

## 2.6 The Efficiency Factor

The Operating Grants Committee has for some time been concerned with the use by OCUA of a so-called "productivity" or "efficiency" factor. The concern stems from our judgement that both the data and the methodology for estimating productivity are not appropriate for universities. As the Economic Council frequently points out in its several studies and annual reviews dealing with productivity, methods of estimating productivity in large segments of the service

sector are at best crude.[3] Indeed, a judgement that they are meaningless would not be inappropriate. The problem is usually that of the absence of accepted measures of output.

The recently distributed report of the Tripartite Committee on Macro-Indicators on student-faculty ratios does however provide a reference point for "productivity" growth in Ontario universities over the period 1970-71 to 1975-76. Data for 1976-77 are included in Table 3-9 of the present brief. Using full-time equivalent enrolment as the measure of output and full-time equivalent faculty as the measure of input, "productivity" appears to have increased annually at an average rate of more than 1.7%. This rate is clearly significantly in excess of both historical and projected rates for both the overall service sector and the sub-sector of it that includes universities. It is our firm belief that a significant part of this 1.7% is not an increase in productivity; rather it almost wholly represents a decrease in quality.

Following upon these considerations, it would not be inappropriate for the Operating Grants Committee to recommend discontinuation of the efficiency factor as an element in the calculation of system needs. In view, however, of the repeated use of such a factor by OCUA, we suggest instead that a less arbitrary means of estimating "productivity" gains be adopted.

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[3] For example see Economic Council of Canada, Twelfth Annual Review: Options for Growth, 1975 (Ottawa: Information Canada, 1975), p.37.

In 1975, the Economic Council found that from 1947 to 1973 only 6% of the total productivity gains in Canada were attributable to the tertiary sector, i.e. the service industries; 34% of the gains arose from the primary sector; and 60% arose from the secondary sector.[4] In the same report, it estimated that the average annual percentage change for pure productivity growth between 1975 and 1980 will be 3.1%. Assuming the above historical relationship and taking into account the size of the service sector (about one-half the total economy) would lead to the conclusion that universities might be expected to show a 0.4% i.e. $\left(\frac{0.031 \times 0.06}{0.5}\right)$ productivity increase per annum, rather than the 1% assumed by OCUA.

Arguments can be put forward to suggest that even this figure is too high, given the past performance of the "community, business and personal services" sub-sector within the larger service sector[5]. Notwithstanding such arguments, the Operating Grants Committee is prepared to recommend an efficiency factor of 0.4% per year. Any higher a factor would defy explanation.

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[4] Options for Growth, pp. 46-47

[5] Economic Council of Canada, Eleventh Annual Reviews: Economic Targets and Social Indicators, 1974 (Ottawa: Information Canada, 1974), Table 8.1, pp. 178-79.

## 2.7 Provision for Enrolment Variation

### 2.7.1 1977-78 Enrolment Summary

In the 1977 COU brief, considerable attention was given to the lower than expected enrolment increase in 1976-77. It was postulated that this situation had resulted from the formal policy to stabilize enrolment adopted by a number of institutions. This factor heavily influenced the Committee on Enrolment Statistics and Projections (CESP) and led to its projection of only a 1 to 2% increase in FTE undergraduate enrolment in 1977-78 when demographic evidence would have suggested a higher rate of increase.

While only preliminary enrolment data were available to CESP during its deliberations for this brief, the figures presented an unexpected picture. Total full-time undergraduate enrolment in the Ontario system declined by 2.8% in 1977-78 by comparison to 1976-77. Part-time undergraduate was down by 2.6%, full-time graduate by 3.4% and part-time graduate by 1.5%.

Examining the decline in full-time undergraduate enrolment more closely, figures submitted to the CESP by the universities showed that first year enrolment declined by 5.9%, accounting for 60% of the full-time undergraduate decline. (The decline in first year enrolment was widespread across the system; only

three universities registered an increase; most of this decline showed up in arts and science programmes.)

The decline in other than first year programmes was evenly distributed between education programmes and other upper year undergraduate enrolment. The decline in upper year enrolment, however, was not widespread across the system; only five universities showed significant decline.

2.7.2 Projections for 1978-79:

a) Full-time Undergraduate Enrolment:

The preceding section has briefly examined the enrolment situation faced by the Ontario universities in 1977-78. No conclusive evidence can be offered at the present time as to what factors may have contributed to this situation. Current speculation places emphasis on the present uncertain state of the economy as having an adverse effect on enrolment in the universities.

This works in two ways. First, it would appear that an increasing number of students are holding on to summer jobs until the economic climate shows signs of improving. During the past year, students obtained an impression from numerous articles in the press that there was an uncertain future awaiting university graduates. This undoubtedly had an effect on students' decisions to attend.

Second, it also appears that some students who did not attend university in 1977-78 are those who failed to obtain summer employment and, therefore, could not afford to return to school. The anticipated heavier unemployment among young adults in the summer of 1978 may have an even larger negative effect on enrolment in 1978-79. As the unemployment rate varies across the province, the above factor may have a greater impact on some institutions than on others. With respect to 1978-79 conditions, no available economic forecast has suggested a change in this general picture.

Further, statistics from the Ministry of Education's Combined Registration of Students file indicate that the number of secondary school students who say they expect to complete the requirements for the honours graduation diploma in 1977-78 is down by 3.6%. The number of students who indicated that they intend to apply to university in 1978-79 declined by 3.4%. A telephone survey conducted by OCUA in December of Boards of Education in major urban centres (representing 60% of total Year 5 enrolment) indicated a decline of 1.8% in Year 5 enrolment this year.

Taking the above factors into consideration, i.e. the likelihood of a further drop in first year intake in 1978-79 and the pipeline effect of 1977-78's reduced intake, CESP projects a decline of the order of 2% in 1978-79 which will bring

undergraduate enrolment to about the 1975-76 level.

b) Full-time Graduate Enrolment:

A drop in intake in 1976-77 resulted in a decline of over 3% in enrolment in 1977-78. The most optimistic forecast is that there will be no change in 1978-79. However, it is estimated that there will likely be a drop of no less than the 3% experienced this year.

c) Part-time Enrolment:

No trend is apparent in part-time enrolment, at either the undergraduate or graduate level. It is estimated that decreases in part-time enrolment will be at the same levels as decreases in full-time enrolment.

The combined effect of a 2.0% decrease in undergraduate enrolment and a 3.0% decrease in graduate enrolment would give rise to an overall reduction in system enrolment of 2.2%. The Operating Grants Committee directs the attention of OCUA to the fact that the impact of such a decline in enrolment is likely to vary sharply among the institutions.

2.8 Stabilization Factor

Insofar as a 50% discount has been applied to funding for enrolment growth during recent years when enrolment growth was

experienced, it seems entirely appropriate to discount enrolment declines by the same factor. We recommend therefore that OCUA continue to use the 50% discount in the determination of 1979-80 funding levels.

2.9 Other Considerations:

While most of the financial support to the Ontario university system is distributed by means of the operating grants formula, it has been recognized that there are special needs requiring support through special grants. The sums allocated by means of these grants do not constitute a large proportion of total operating support, but they are, nonetheless, extremely important for the institutions which receive them, enabling these institutions to meet their commitments to the system. Three of these special grants are mentioned here.

2.9.1 Bilingual Grants

It is encouraging to learn that OCUA, as a result of recently completed studies, now considers itself well equipped with strong evidence on which to base recommendations on the bilingual grants. It is also encouraging to learn that OCUA has recommended a significant increase in the level of these grants to meet the costs of current levels of activity and that this increase be

built into a base allocation for a four to six year period.

COU has always supported the development of bilingual programmes in Ontario universities and recognizes that this is more important today than it has ever been. Council's concerns in this regard have been expressed most recently in the Report of a Special Committee on the Support of Bilingualism in Ontario Universities, which has also been forwarded to OCUA. Council shares the judgement of OCUA that the costs of additional bilingual initiatives in Ontario universities will require further funds, beyond those now being provided or recommended and it joins in urging that such funds be made available, from sources outside the present global amount.

2.9.2 Northern Grants

The requirements for special assistance arising from the costs of providing university education in the northern environment have been recognized and provision for meeting these made through the "mini-formula" outlined in OCUA Advisory Memorandum 75-VII. The Operating Grants Committee supports the continuation of Northern Ontario grants based on this formula.

2.9.3 Supplementary Grants

A third category of special grant, provided to three of the smaller

universities is the supplementary grant. Originally designated as an "emergent grant", this was provided to new, small universities in recognition of their relatively higher fixed costs and as a means of assisting them to meet their educational commitments while expanding to a size at which their enrolment would make them formula-viable. The more recent allocations under the designation of "supplementary grant" continue to serve the same basic function.

OCUA has made it clear, during the past several years, that supplementary grants must be eliminated over time. This policy has been reflected in a yearly reduction to recipient institutions of $250,000. When projections were anticipating a continued growth in system enrolment, there was some possibility that a policy of phased reduction of supplementary grants could be effected without serious damage to these institutions. As outlined in Section 2.7, however, a decline in system enrolment is now being forecast. The smaller institutions are particularly exposed in this environment. For those institutions which have long received a supplementary grant, to be forced to adjust at the same time both to a decline in revenue due to falling enrolment and to a reduction in the supplementary grant will produce very severe strains upon them.

The Operating Grants Committee recognizes the difficulties, in current circumstances, of basing policy regarding the supplementary grant exclusively on size. It notes, however, that the history of

this special grant shows that factors relating to size include programme mix and enrolment. As we have said elsewhere in this section, OCUA has addressed through study and successfully resolved the difficult problems of determination and distribution of grants for bilingualism and for northern universities. We therefore find perplexing OCUA's reluctance to enter into a study of the needs of those universities in receipt of supplementary grants. In the absence of such a study, OCUA's most recent recommendation to reduce further these grants appears arbitrary. In these circumstances, the Operating Grants Committee renews its proposal, made in last year's brief, that there be further joint study of these issues.

2.10 Cost of the Basic Objectives

2.10.1 Establishing the funding base:

In forecasting expenditure requirements for 1979-80, the Operating Grants Committee has had to establish a funding base for 1978-79 in the absence of budget information from the universities. In doing so, it accepts the basic premise outlined by OCUA in Advisory Memorandum 77-III that expenditure figures and revenue figures for the year in question should be assumed to be the same. Thus an attempt has been made to forecast the revenues of the system for 1978-79.

a) Formula and Non Formula Grants:

The Ministry has announced funding of $745.4 million for the university system in 1978-79. This figure includes $9.0 million by way of Ministry line item grants and thus the amount available for distribution by OCUA is reduced to $736.4 million (including $5.8 million transferred from line item grants).

b) Other Revenues:

The assumption continues to be made, in the absence of contrary evidence, that other revenues have become relatively stable. The Committee therefore accepts, for purposes of this model, the figure for other revenue cited in Advisory Memorandum 77-III of $54.9 million (excluding $3.4 million for repair and maintenance projects now included in the $5.8 million cited above).

c) Tuition and Other Fees:

Advisory Memorandum 77-III uses a figure of $147.9 million for tuition fee revenue for 1977-78. The figure was derived on the assumption of a 1.6% increase in enrolment; actual enrolment in 1977-78 has decreased by 2.5% and thus 1977-78

tuition fee revenue must be adjusted downward to $142.0 million. COU's Committee on Enrolment Statistics and Projections has projected a further decrease in enrolment for 1978-79 of 2.2% which would give rise to tuition fee revenue of $138.9 million.

d) Total Revenue:

Total revenue for 1978-79 is estimated at

| | |
|---|---|
| Grants | $736.4 million |
| Other Revenue | 54.9 |
| Tuition | 138.9 |
| | $930.2 million |

For purposes of calculation, the expenditure base for 1978-79 is assumed to equal revenue for 1978-79.

2.10.2 Distributing the funding base:

In the absence of budget data for 1978-79, the Operating Grants Committee has had to make certain assumptions about the distribution of 1978-79 funds among salaries, fringe benefits and non-salary items. Using as a starting point the 1977-78 distribution presented in Advisory Memorandum 77-III, the funds represented by the additional $2.8 million in line item

transfers and the $0.4 million for the Bar Admission Course have been prorated into OCUA's figures to establish the distribution of the revised 1977-78 funding base of $898.2 million. The unavoidable cost increases cited in section 1.2 of the present brief have then been added to the appropriate expenditure components and the residual amount distributed on a pro rata basis to generate the distribution of the 1978-79 expenditure base of $930.2 million cited in column 1 of Table 2-5.

Table 2-5

Estimate of the Cost of the COU Basic Funding Recommendations 1979-80 ($million)

| | 1<br>Estimated Expenditures 1978-79 | 2<br>Inflationary Trend Cost 1979-80 | 3<br>Existing Service Level Cost 1979-80 | 4<br>Efficiency Factor (Negative) | 5<br>Predicted Enrolment Costs 1979-80 | 6<br>Stabil-ization Factor + or (-) | 7<br>Cost of Basic Objectives 1979-80 |
|---|---|---|---|---|---|---|---|
| Salaries | 671.2 | 40.3 | 14.2 | (2.9) | (15.9) | 8.0 | 714.9 |
| Fringe Benefits | 75.0 | 4.5 | 1.6 | (0.3) | ( 1.8) | 0.9 | 79.9 |
| Non-Salary | 184.0 | 13.6 | 4.9 | (0.8) | ( 4.4) | 2.2 | 199.5 |
| Total | 930.2 | 58.4 | 20.7 | (4.0) | (22.1) | 11.1 | 994.3 |

2.10.3 A Summary of the Factors in the Calculation

Previous sections in the present brief have addressed the various factors required in the working through of the OCUA system financing model. These may be summarized as follows, with reference to Table 2-5.

Column 2: Inflationary Trend Cost 1979-80 - Expected rates of inflation for salaries (6%); fringe benefits (6%); and non-salary items (7.4%). (See sections 2.1, 2.2 and 2.3 respectively.)

Column 3: Existing Service Level Cost 1979-80 - The OCUA rates for progress through the ranks of 2% on salaries and fringe benefits; and 2.5% for furniture and equipment. (See sections 2.4 and 2.5.)

Column 4: Efficiency Factor - A discount for productivity is assessed at 0.4%. (See section 2.6.)

Column 5: Predicted Enrolment Costs 1978-79 - Provision is made for a decrease in enrolment of 2.2%. This is based on a 2% drop in undergraduate enrolment and a 3% drop in graduate enrolment. (See section 2.7.)

Column 6: Stabilization Factor - Discounts system enrolment variation by 50%. (See section 2.8.)

2.10.4 Cost of Basic Objectives

Column 7 of Table 2-5 sets out the cost of the basic objectives for 1979-80. These total $994.3 million and represent a 6.9% increase over 1978-79 expenditure levels. Were the Government to continue a freeze on tuition fee levels through 1979-80, the entire amount of the requisite increase would have to be funded by government grants. Hypothesizing a reduction in enrolment (and therefore in tuition revenue) in 1979-80 equal to that projected for 1978-79, the cost to the government might be estimated at $803.6 million which would represent an increase of 9.1% over 1978-79 funding levels.

## 3.0 IMPLICATIONS OF THE "NEW REALITY"

### 3.1 Universities and the Ontario Government's Deficit Reduction Plan

Despite the present method of year to year financing of the university system, institutional and system wide planning must extend to a more distant horizon. During the past several years, although the precise topography may have been uncertain, guidelines have existed which, at least for financial purposes, set the path to the horizon in reasonably understandable terms. These guidelines, accepted by both OCUA and the Government, were that global funding recommendations should attempt to provide funds to 1) meet expected inflation; 2) maintain present levels of quality and service; and 3) accommodate enrolment variation.

To carry a geological metaphor further than it deserves, earthquakes may disrupt one's view of the horizon. During the past year, we have received a number of statements from the Provincial Treasurer, beginning with Budget Paper C,[6] which may give us some guidance in our attempts to replan our own strategy for the next few years.

As input to our planning process, Budget Paper C advises us that

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[6] Towards a Balanced Budget, Budget Paper C, Ontario, 1977.

the Province's projected budgetary spending will increase by 6.3% in 1978-79 and 1979-80 and by 6.0% in 1980-81. After deduction of committed pension contributions and public debt interest, a dollar figure equivalent to a 5.8% increase in each of the three years is available for all other budgetary expenditures.

However, in September, the Treasurer, while speaking to the Provincial-Municipal Liaison Committee, advised us that, as a result of the underperformance in the economy and other factors, certain revisions had been made to this model. It is our understanding that the balanced budget objective may be delayed by one year to 1981-82 and that the percentage increase in controllable spending is likely to be reduced.[7] Finally, it has been indicated that the university sector should expect increases in funding levels neither better nor worse than those afforded to other government supported sectors.

For the purposes of this brief, we are using two figures as estimates of the annual increment in government support to the university system. These figures of 4.5% and 5.8% might be postulated to be the two values between which the actual rate of increase will fall.

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[7] See also Building Canada in a Tougher World Economy and the text of an address to the Society of Plastics Industries of Canada presented by the Hon. W. Darcy McKeough on October 5 and October 18, 1977 respectively.

## 3.2 The Basis for Extending the Financial Horizon

In the light of the statements by the Provincial Treasurer with respect to the pattern of growth of government expenditure, the Operating Grants Committee has ventured to extend its estimates of the financial needs of the system for several years beyond 1979-80. Insofar, however, as the Treasurer's programme of fiscal constraint first has its effect on the university system in 1978-79 we have concluded that, in order to measure the full impact of the deficit reduction programme, the models must use 1977-78 as their starting point.

In working the models through, the Operating Grants Committee has chosen to use as factors in its calculations of each year's minimum financial requirements, those presented in its financial model for 1979-80, as summarized in Section 2.10. Indeed, any attempt to speculate on the various factors in the calculations has deliberately been avoided and the models have been permitted to iterate to their arithmetic conclusion. These models, therefore, should not be interpreted as an attempt to forecast the financial future of the university system. Rather they are simply an exercise using an existing financial model to demonstrate some compelling arithmetic logic.

Notwithstanding the foregoing, the Committee would wish to point

Table 3-1

Estimates of Minimum Funding Requirements
($ millions)

1979-80 Revised

| | Funding Base 1978-79 | Inflationary Trend Cost 1979-80 | Existing Service Level Cost 1979-80 | Efficiency Factor (Negative) | Predicted Enrolment Costs 1979-80 | Stabilization Factor + or (-) | Minimum Funding Requirement 1979-80 |
|---|---|---|---|---|---|---|---|
| Salaries | 688.5 | 41.3 | 14.6 | (3.0) | (16.3) | 8.2 | 733.3 |
| Fringe Benefits | 77.9 | 4.7 | 1.7 | (0.3) | ( 1.8) | 0.9 | 83.1 |
| Non-Salary | 194.4 | 14.4 | 5.2 | (0.9) | ( 4.7) | 2.4 | 210.8 |
| Total | 960.8 | 60.4 | 21.5 | (4.2) | (22.8) | 11.5 | 1027.2 |

1980-81

| | Funding Base 1979-80 | Inflationary Trend Cost 1980-81 | Existing Service Level Cost 1980-81 | Efficiency Factor (Negative) | Predicted Enrolment Costs 1980-81 | Stabilization Factor + or (-) | Minimum Funding Requirement 1980-81 |
|---|---|---|---|---|---|---|---|
| Salaries | 733.3 | 44.0 | 15.5 | (3.2) | (17.4) | 8.7 | 780.9 |
| Fringe Benefits | 83.1 | 5.0 | 1.8 | (0.4) | ( 2.0) | 1.0 | 88.5 |
| Non-Salary | 210.8 | 15.6 | 5.7 | (0.9) | ( 5.1) | 2.5 | 228.6 |
| Total | 1027.2 | 64.6 | 23.0 | (4.5) | (24.5) | 12.2 | 1098.0 |

1981-82

| | Funding Base 1980-81 | Inflationary Trend Cost 1981-82 | Existing Service Level Cost 1981-82 | Efficiency Factor (Negative) | Predicted Enrolment Costs 1981-82 | Stabilization Factor + or (-) | Minimum Funding Requirement 1981-82 |
|---|---|---|---|---|---|---|---|
| Salaries | 780.9 | 46.9 | 16.6 | (3.4) | (18.5) | 9.3 | 831.8 |
| Fringe Benefits | 88.5 | 5.3 | 1.9 | (0.4) | ( 2.1) | 1.1 | 94.3 |
| Non-Salary | 228.6 | 16.9 | 6.1 | (1.0) | ( 5.5) | 2.8 | 247.9 |
| Total | 1098.0 | 69.1 | 24.6 | (4.8) | (26.1) | 13.2 | 1174.0 |

out that its extended projection of minimum system requirements would appear to be an extremely conservative one. Two factors affect the models more than any others - inflation and enrolment variation. With respect to the first of these factors, the models project a rate of inflation of 6% per annum through 1981-82. This is the annual rate of inflation implicit in the financial projections which constitute Budget Paper C. The Canadian economy has not experienced so low a rate of annual inflation since 1972, not even during the period of the anti-inflation programme.[8] The controls through which this programme has manifested itself will be lifted effective April 1978.

With respect to enrolment, the Committee notes that the cumulative effect of annual rates of decrease of 2.2% per annum will be to bring 1981-82 enrolment to a point 8.5% below 1977-78 levels. The most sophisticated demographically based long-term enrolment projection yet produced[9] did not foresee such a point being reached before the early 1990's.

Table 3-1 presents estimates of the minimum financial requirements of the system, based on the foregoing assumptions for each

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[8] Recent figures would indicate that inflation is presently running at 9.0%.

[9] Future Trends in Enrolment and Manpower Supply in Ontario, Z. Zsigmond et. al.; Ottawa, 1976.

of 1979-80, 1980-81 and 1981-82. Data for 1978-79, used subsequently in this analysis, are drawn from Table 1-1. The cumulative effect of the various factors in the model is to increase the requirements of the system from all sources of revenue at a rate of 6.9% per year.

The cost to the government of meeting such expenditure requirements is related to the extent to which other offsetting revenue can be found, the two principal elements of which are tuition fees and "other revenue".

3.3. Other Revenue

In its brief entitled Foundation for an Uncertain Future: the Operating Base presented to OCUA in May 1977, the Operating Grants Committee recommended that no increase should be assumed in what is generally termed "other revenue". We are pleased to note that OCUA in the Appendix to Advisory Memorandum 77-III recognized that the past assumptions on increases in other revenue were too optimistic.

Two principal components of other revenue are 1) return on investments and 2) gifts, grants and donations. With respect to the first of these, the Committee notes that the conditions which led to its recommendation last May continue to exist, i.e. lower interest rates than those which existed a few years ago and smaller cash

reserves to invest. With respect to gifts, grants and donations, the Committee notes that private fund-raising is most likely to be effective in relation to capital projects, innovations or selective enrichment programmes rather than to general operating expenses. Further, it is likely that the potential for fund-raising will be uneven among the universities. For these reasons it is our opinion that fund-raising does not provide a realistic avenue for the universities to supplement their operating income in any significant way.

## 3.4 An Interim Stage

For purposes of this exercise, two of three revenue components have been defined. Grant revenue can be projected to increase within a range of 4.5% - 5.8% per annum. Other revenue can be projected to remain stable at current levels. At least arithmetically the third component, tuition fee revenue, can be projected to increase within a very wide range.

Table 3-2 presents estimated levels of revenue with tuition fees frozen and grants increasing at 4.5% and 5.8% respectively, The rate of increase of total revenue is 3.3% per annum under the first assumption and 4.4% per annum under the latter.

Table 3-2

Estimated Levels of Revenue
Tuition Fees Frozen
($ millions)

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|
| Other Revenue | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 |
| Tuition Fees[1] | 142.0[2] | 138.9 | 135.8 | 132.8 | 129.9 |
| Grants @ +4.5% | 695.4[3] | 736.4[4] | 769.5 | 804.2 | 840.4 |
| Grants @ +5.8% | 695.4[3] | 736.4[4] | 779.1 | 824.3 | 872.1 |
| Total @ +4.5% | 892.3 | 930.2 | 960.2 | 991.9 | 1025.2 |
| Total @ +5.8% | 892.3 | 930.2 | 969.8 | 1012.0 | 1056.9 |

1. Tuition fee revenue decreases between 1978-79 and 1981-82 at 1.2% per annum.
2. Includes $3.9 million overestimate of tuition revenue.
3. Includes $3.8 million of line item transfers.
4. Announced level of grant revenue.

Table 3-3

Minimum Financial Requirements vs. Estimated Revenue
Tuition Fees Frozen
($ millions)

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|
| COU | 892.3 | 960.8 | 1027.2 | 1098.0 | 1174.0 |
| Grants @ +4.5% | 892.3 | 930.2[1] | 960.2 | 991.9 | 1025.2 |
| Grants @ +5.8% | 892.3 | 930.2[1] | 969.8 | 1012.0 | 1056.9 |
| Deficiency @ +4.5% | - | 30.6 | 67.0 | 106.1 | 148.8 |
| Deficiency @ +5.8% | - | 30.6 | 57.4 | 86.0 | 117.1 |

1. Based on announced grant revenue of $736.4 million.

Table 3-3 demonstrates the widening gap between COU's minimum requirements for the system and the revenue estimates presented in Table 3-2, from a figure of $30.6 million in 1978-79 to something in the range of $117.1 - $148.8 million by 1981-82. A revenue shortfall of this magnitude leads the Operating Grants Committee to examine tentatively the remaining revenue component - tuition fees.

## 3.5 Hypothetical Fee Levels

Principles which should govern the setting of tuition fees were addressed in a special COU brief to OCUA in the summer of 1976.[10] Among the principles of particular significance to the present exercise is that which states

> In a time of rapidly increasing costs, fees should not remain fixed. However there should not be a major increase in the proportion of costs borne by fees, that would substantially increase the burden upon the students....

A modelling exercise such as this requires specific inputs and we have chosen to arithmetically extend the revenue estimates presented in Section 3.4 by allowing tuition fee levels to escalate at the same rate as grant revenue is permitted to escalate. This is judged to be consistent with the COU statement of principles.

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[10] Statement of Principles which Should Govern the Setting of Tuition Fees. COU, June, 1976.

Table 3-4

Estimated Levels of Revenue
Fees Increasing at +4.5% and +5.8%
($ millions)

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|
| Other Revenue | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 |
| Tuition[1] @ +4.5% | 142.0[2] | 146.9[3] | 150.2 | 153.5 | 156.9 |
| Tuition[1] @ +5.8% | 142.0[2] | 146.9 | 152.0 | 157.3 | 162.8 |
| Grants @ +4.5% | 695.4[4] | 736.4[5] | 769.5 | 804.2 | 840.4 |
| Grants @ +5.8% | 695.4[4] | 736.4[5] | 779.1 | 824.3 | 872.1 |
| Total @ +4.5% | 892.3 | 938.2 | 974.6 | 1012.6 | 1052.2 |
| Total @ +5.8% | 892.3 | 938.2 | 986.0 | 1036.5 | 1089.8 |

1. Tuition revenue adjusted for annual decrease in enrolment of 2.2%.
2. Includes $3.9 million overestimate of tuition revenue.
3. Tuition at +5.8% i.e. at level of announced rate of increase of grants.
4. Includes $5.8 million of line item transfers.
5. Announced level of grant revenue.

Table 3-5

Minimum Financial Requirements vs. Estimated Revenue
Fees Increasing at +4.5% and +5.8%
($ millions)

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|
| COU | 892.3 | 960.8 | 1027.2 | 1098.0 | 1174.0 |
| Grants and Tuition at +4.5% | 892.3 | 938.2[1] | 974.6 | 1012.6 | 1052.2 |
| Grants and Tuition at +5.8% | 892.3 | 938.2[1] | 986.0 | 1036.5 | 1089.8 |
| Deficiency at +4.5% | - | 22.6 | 52.6 | 85.4 | 121.8 |
| Deficiency at +5.8% | - | 22.6 | 41.2 | 61.5 | 84.2 |

1. Includes announced grant revenue of $726.4 million.

Table 3-4 models estimated levels of revenue through 1981-82 on the assumption that both grants and tuition fee rates are permitted to escalate at 4.5% and 5.8%. Under these assumptions and those of a constant other revenue and declining enrolment, total revenue would increase annually at 3.9% and 5.1% respectively.

Table 3-5 still gives evidence of a wide gap between minimum requirements and revenue estimates, a gap growing from $22.6 million in 1978-79 to something within a range of $84.2 - $121.8 million by 1981-82.

Table 3-6 sets out a hypothetical tuition fee rate in each year through 1981-82 with the rate increasing at 4.5% and 5.8% per annum. The table also sets out, again hypothetically, the rate of tuition that would have to be charged were all of the gap between minimum requirements and estimated revenue to be derived from increased tuition fees. Tuition fee revenue arising from these fee levels is also presented, as is the proportion of total revenue represented by tuition revenue in each case. It may be arguable whether or not this final proportion of total university revenue derived from fees is inconsistent with the above-stated COU policy position. It is, however, clear that the rapidity of the escalation in fee levels, implicit in the most extreme models in Table 3-6, is <u>not</u> consistent with the COU position on this matter.

Table 3-6

Hypothetical Fee Levels

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|
| Fees at +4.5% | | | | | |
| Fee Level | $ 685[1] | $ 725[3] | $ 758 | $ 792 | $ 928 |
| Revenue generated | 142.0[2] | 146.9 | 150.2 | 153.5 | 156.9 |
| Tuition as % of Total Revenue | 15.9 | 15.7 | 15.4 | 15.2 | 14.9 |
| Fees at + 5.8% | | | | | |
| Fee Level | $ 685[1] | $ 725[3] | $ 767 | $ 811 | $ 858 |
| Revenue generated | 142.0[2] | 146.9 | 152.0 | 157.3 | 162.8 |
| Tuition as % of Total Revenue | 15.9 | 15.7 | 15.4 | 15.2 | 14.9 |
| Fees to Meet Requirements with Grants at +4.5% | | | | | |
| Fee Level | $ 685[1] | $ 836 | $1022 | $1231 | $1468 |
| Annual % Increase | - | 22.0 | 22.3 | 20.5 | 19.3 |
| Revenue generated | 142.0[2] | 169.5[4] | 202.8 | 238.9 | 278.7 |
| Tuition as % of Total Revenue | 15.9 | 17.6 | 19.7 | 21.8 | 23.7 |
| Fees to Meet Requirements with Grants at +5.8% | | | | | |
| Fee Level | $ 685[1] | $ 836 | $ 974 | $1128 | $1302 |
| Annual % increase | - | 22.0 | 16.5 | 15.8 | 15.4 |
| Revenue generated | 142.0[2] | 169.5 | 193.2 | 218.8 | 247.0 |
| Tuition as % of Total Revenue | 15.9 | 17.6 | 18.8 | 19.9 | 21.0 |

1. 1977-78 fee level is formula fee for Arts and Science.
2. In millions of dollars. 1977-78 tuition fee revenue excludes $5.9 million overestimate.
3. Tuition fee level +5.8% i.e. at level of announced rate of increase of grants.
4. Based on announced grant revenue of $736.4 million.

Although we have restricted ourselves, in this section of the brief, to a simple presentation of figures arising from the models, a general observation is in order. No account is taken of the potential impact on enrolments generally of increasing tuition fee levels. It is perhaps worth citing, therefore, a further principle form COU's 1976 brief on tuition fees.

> Changes in tuition fees must be accompanied by adjustments in student aid, the grant portion of which will be particularly critical in relation to the maintenance of accessibility for students in financially disadvantaged circumstances.

To those for whom the hypothetical fee levels in the models are conclusive in some way, that principle must be borne in mind.

### 3.6 Reducing Expenditure

In the event that estimated revenue cannot be matched with minimum financial requirements, the Operating Grants Committee has chosen to attempt to measure the implications of reducing expenditure levels to match estimated revenue. Individual university briefs and a subsequent COU brief will deal with the potential for saving arising from inter-institutional cooperation.

#### 3.6.1 Non-Salary Expenditure

The phenomenon of capital consumption as a means of financing compensation levels and unavoidable costs has been discussed in

Table 3-7

Percentage Analysis of Operating Expenses,
1970-71 to 1976-77

| Operating Expenses by Object of Expense | 12 Mths 1970-71 % | 10 Mths 1971-72 % | 12 Mths 1972-73 % | 12 Mths 1973-74 % | 12 Mths 1974-75 % | 12 Mths 1975-76 % | 12 Mths 1976-77 % | % Change 1970-71 through 1976-77 |
|---|---|---|---|---|---|---|---|---|
| Salaries and Wages | | | | | | | | |
| Academic Ranks | 37.0 | 36.9 | 38.7 | 38.2 | 37.8 | 38.0 | 38.6 | 4.3 |
| Other Instruction & Research | 4.5 | 5.1 | 4.1 | 4.3 | 4.6 | 4.7 | 4.6 | 2.2 |
| Other Salaries & Wages | 28.6 | 28.3 | 29.4 | 29.0 | 29.1 | 29.1 | 28.8 | 0.7 |
| Total Salaries & Wages | 70.1 | 70.3 | 72.2 | 71.5 | 71.5 | 71.8 | 72.0 | 2.7 |
| Fringe Benefits | 5.8 | 6.2 | 6.7 | 6.8 | 7.0 | 7.7 | 8.1 | 39.7 |
| Total Salaries & Benefits | 75.9 | 76.5 | 78.9 | 78.3 | 78.5 | 79.5 | 80.1 | 5.5 |
| Books & Periodicals | 2.9 | 2.9 | 2.5 | 2.4 | 2.3 | 2.0 | 2.0 | (31.0) |
| Furniture & Equipment | | | | | | | | |
| Purchase | 3.2 | 3.3 | 2.2 | 2.0 | 2.1 | 1.9 | 1.9 | (40.6) |
| Rental | 1.6 | 1.5 | 1.6 | 1.6 | 1.4 | 1.2 | 1.0 | (37.5) |
| Operational Supplies & Expenses | 7.2 | 7.2 | 6.3 | 6.2 | 7.2 | 6.9 | 6.2 | (13.9) |
| Utilities | 3.0 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.6 | 20.0 |
| Taxes | 0.7 | 0.7 | 0.7 | 1.2 | 1.1 | 1.1 | 1.0 | 42.9 |
| Renovations & Alterations | 1.5 | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 | 0.9 | (40.0) |
| Externally Contracted Services | 0.8 | 0.8 | 1.0 | 1.1 | 0.9 | 1.0 | 1.2 | 50.0 |
| Scholarships, Bursaries, etc. | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.5 | 0.6 | 200.0 |
| Principal & Interest Payments | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | (100.0) |
| Miscellaneous | 3.6 | 3.2 | 3.0 | 3.3 | 2.7 | 2.2 | 2.3 | (36.1) |
| Internal Cost Allocations | -0.8 | -0.8 | -1.0 | -0.9 | -1.1 | -1.0 | -1.0 | 25.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |

Source: COFO-UO Total Revenue and Expense Reports

Source: COFO-UO Total Revenue and Expense Reports

several recent briefs. Table 3-7 shows that salaries and benefits continue to consume an increasing percentage of university operating funds. Non-salary items, including library books, building maintenance and equipment, have been squeezed for a number of years and we have no doubt that expenditures on most such items have already been reduced below prudent levels.

Capital resources can only be consumed for a limited period before a marked decrease in level of service occurs and we feel that it is unlikely that institutions will be able to make further significant cuts in this area without causing a dramatic drop in quality of service received.

For the purpose of models which will be presented subsequently, we will assume that percentage savings in non-salary expenditure can be realized which are equal to those which we will assume for salary expenditures. We believe this to be an optimistic assumption.

### 3.6.2 Salary and Fringe Benefit Expenditure

Salary and benefit expenditure is the other component of university operating expenditures for which we must model the implications of reductions in total funds available. Our models are simple, but we believe that they present a realistic picture of the magnitude of the problem which faces the universities.

Using the figures which we have developed previously, Table 3-8 illustrates the potential impact of the shortfall in funding on the full-time academic staff complement. Were base figures on full-time non-academic staff readily available, a similar table could be presented to illustrate the extent of the parallel reduction for the non-academic staff complement. The estimates are based on the smallest and largest revenue shortfalls implicit in the models presented above. The assumptions take into account the annual enrolment decrease of 2.2% and also assume that the shortfall in funding would be distributed equally over all areas of expenditure.

Table 3-8

Estimates of Full-time Academic Staff Complement

| | | 1976-77 | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
|---|---|---|---|---|---|---|---|
| Assuming COU basic objectives are met | | 11677 [1] | 11700 [2] | 11571 | 11444 | 11318 | 11194 |
| % variation from 77-78 | | - | - | ( 1.1) | ( 2.2) | ( 3.3) | ( 4.3) |
| Assuming grants and tuition fees increase at 5.8% per annum | Complement | 11677 | 11700 | 11299 | 10985 | 10685 | 10391 |
| | Shortfall | - | - | 272 | 459 | 633 | 803 |
| % variation from 77-78 | | - | - | ( 3.4) | ( 6.1) | ( 8.7) | (11.2) |
| Assuming grants increase by 4.5% and tuition fees are frozen | Complement | 11677 | 11700 | 11203 | 10698 | 10224 | 9776 |
| | Shortfall | - | - | 368 | 746 | 1094 | 1418 |
| % variation from 77-78 | | - | - | ( 4.2) | ( 8.6) | (12.6) | (16.4) |

1. Statistics Canada UCASS
2. Estimate for current year

It should be noted that on this basis, faculty complements through 1981-82 would have to be reduced by about 500 under COU minimum requirements, by about 1300 under the most favourable assumptions of government funding modelled in this brief, and by about 1900 under the least favourable assumptions. The most favourable government funding model would leave the system with 800 fewer faculty than defined as necessary under minimum requirements; the least favourable would give rise to a shortfall of 1400 faculty.

Table 3-9 shows historical data on student-faculty ratios for the university system and projects these ratios using the same assumptions presented in Table 3-8. During the period 1970-71 through 1976-77, student faculty ratios have increased from 13.8 : 1 to 15.3 : 1, which is implicit recognition of the marginal funding for enrolment growth that has been characteristic of this period. Because of enrolment shortfalls in 1977-78, it is estimated that the student-faculty ratio has fallen to 14.9 : 1.

Under COU's minimum funding requirements, although as we have seen there would be 500 fewer faculty positions by 1981-82, student-faculty ratios would decline gradually to 14.2 : 1. This is the inevitable and reasonable result of the 50% discount for enrolment variation proposed and supported by both OCUA and the Government. It is clearly a reflection of the Minister's

Table 3-9

Trends in, and Estimates of FFTE-Students per FTE-Faculty
1970-71 through 1981-82

| | 70-71[1] | 74-75[1] | 75-76[1] | 76-77 | 77-78 | 78-79 | 79-80 | 80-81 | 81-82 |
|---|---|---|---|---|---|---|---|---|---|
| Actual figures[2,3] 13 universities | 13.8 | 14.6 | 15.2 | 15.3 | 15.5[4] (expected) | | | | |
| Estimate assuming COU basic objectives are met | | | | | 14.9[5] | 14.7 | 14.6 | 14.4 | 14.2 |
| Estimate assuming grants and tuition fees increase at 5.8% p.a. | | | | | 14.9[5] | 15.1 | 15.2 | 15.2 | 15.3 |
| Estimate assuming grants increase by 4.5% and tuition fees are frozen | | | | | 14.9[5] | 15.2 | 15.6 | 15.9 | 16.3 |

1. Data for years prior to 1976-77 have been corrected from FTE students to FFTE students, using a reduction factor of 0.7%.
2. Source of actual data: Tripartite Committee on Macro-Indicators and COU staff.
3. WLU and Windsor are excluded as data are not available for every year for those institutions.
4. The figure shown under actual for 1977-78 is that which would have resulted from the enrolment projection contained in the 1977 COU Operating Grants Brief and estimates of 1977-78 faculty complement contained in this brief.
5. The reduced estimate for 1977-78 results from the unexpected decline in enrolment in 1977-78 and a faculty complement, estimated in this brief, which was intended to accommodate the anticipated increase in FTE enrolment.

written commitment to recognize the fixed and variable nature of the cost infrastructure of the university system in funding through the 1980's.

Under the most favourable government funding assumptions modelled in this brief, faculty complement would drop by 1300 and the resultant student-faculty ratio through to 1981-82 would be at a level approximating current levels. In such an eventuality, government policy would be altered to assume that, a university system which had been marginally funded for enrolment growth should cope with declining enrolment on a full cost basis.

Under the final and least favourable government funding assumption we have modelled, the teaching and research activity of the system would have to be supported by 1900 fewer faculty. Student-staff ratios would increase to 16.3 : 1. In this eventuality, the system would be forced to cope with declining enrolment by reducing budgeted expenditure on a basis equivalent to twice the per student costs for each student lost to the system in any given year.

Under any of these models, the Operating Grants Committee cannot fail to note that the student-faculty ratio in universities

Table 3-10

Rate of Attrition of Faculty to the Ontario University System[1]

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 |
|---|---|---|---|---|---|---|
| Rate of Attrition Since Previous Year (%)[2] | 1.14 | 4.74 | 5.10 | 3.86 | 5.26 | 2.75 |

1. Calculated from Statistics Canada (UCASS) data.
2. Transfers between Ontario universities have been excluded.

Table 3-11

Percentage of FTE Undergraduate Enrolment by Discipline Category[1]

| Discipline Category | 1970-1971 | 1971-1972 | 1972-1973 | 1973-1974 | 1974-1975 | 1975-1976 | 1976-1977 | 1977-1978 |
|---|---|---|---|---|---|---|---|---|
| Professional Programmes[2] | 30.2 | 32.7 | 33.3 | 34.1 | 34.6 | 35.2 | 35.2 | 36.4 |
| Other Programmes[2] | 69.8 | 67.3 | 66.7 | 65.9 | 65.4 | 64.8 | 64.8 | 63.6 |

1. Calculated from university UAR submissions, MCU.
2. "Other Programmes" includes Arts, Science, Fine and Applied Arts, Environmental Studies, Preliminary Year and indistinguishable undergraduate programmes for for Toronto, Trent and York universities.

   "Professional Programmes" includes all programmes not mentioned above.

is beginning to approach the comparable secondary school figure which has ranged between 16.5 and 17.0 : 1 during the years 1971-72 and 1976-77. It now appears that, in some disciplines, secondary school students enjoy smaller classes and more personalized instruction than do university students.

The traditional response to a requirement to reduce staff complements in an institutional setting has been a reliance on attrition. Table 3-10 indicates the rate of attrition of academic staff over the last six years. Since the numbers cited are for the system as a whole, the figures exclude faculty who have transferred from one Ontario university to another. While it is difficult to make any projections, in our opinion the present state of the North American economy and projected requirements for university teachers in Canada will result in a rate of attrition during the planning period which is less than the 2.75% experienced in 1976. Thus, although the reduction in complement of 1.1% per year necessitated by the COU minimum requirements model because of declining enrolment could theoretically be achieved through attrition, it is clear that attrition will not achieve the complement reductions required by the other two models.

In fact, even a reduction in complement through attrition would cause serious problems not evident in a simple analysis of student-faculty ratios. Table 3-11 shows that there has been a shift in undergraduate

enrolment towards the professional programmes. Enrolments in certain areas are continuing to grow and many professional programmes are oversubscribed. It would not be possible to reduce staff complement in these areas; yet these are the staff who have a greater opportunity for mobility in a stagnant economic situation than do those in areas suffering substantial enrolment declines.

Clearly, the university system faces problems of major proportion under any of the alternatives outlined above. Even under COU's minimum requirement model, given the current pattern of enrolment shift, attrition at the system level will make the requisite reduction in faculty complement difficult to attain. In individual institutions, the problems will be compounded to an extreme. Under the other two models presented, the arithmetic of attrition will not be sufficient to provide for the requisite reduction in faculty complement.

One cannot fail to note that under any of the models, the arithmetic of complement reduction takes precedence over academic considerations. The random appearance of a vacant position and its contribution to the numbers game becomes more compelling than the impact on programme quality or research effort. In academic institutions, this situation is unacceptable.

## 4.0 Conclusion

The intended message of this presentation to OCUA is a clear one if present policies are pursued, commencing with 1978-79 and continuing throughout the period ending in 1981-82, the people of Ontario will suffer a significant decline in the quality of their university programmes and services.

Already foreseen as problems for the 1980's were the matters of declining enrolment and an aging faculty. Within the context of OCUA's traditional funding model, the former problem had been addressed through the introduction of a 50% discount on enrolment variation. The issue of aging faculty first addressed by COU two years ago[11] remains unanswered.

The introduction of a programme of government fiscal restraint clearly exacerbates both problems. As a result of this decision by the Government, funding levels for 1978-79 have fallen well below what was recommended by OCUA for next year and would fall even further below university needs in the following three years. This will produce a rapid, large scale reduction in resources to which the system cannot adjust. It should be apparent then, that unless additional government funding is forthcoming, the university

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[11] Academic Career Planning: The Ivory Tower and the Crystal Ball. COU, May, 1976.

system will have to be wound down. It must be recognized, however, that so highly complex a university system is a remarkably vulnerable instrument. Undoubtedly the process of winding down will see damage done. The process of recovery is uncertain.

The government and the people of Ontario have treated their universities as precious resources and have invested heavily in them. The result is that today Ontario has a sophisticated and accessible university system dedicated to meeting the Province's needs for highly qualified manpower, for basic and applied research, and most important, for an enlightened and articulate citizenry to meet the challenges of the future. What has been built up so painstakingly over a considerable period of time is now in jeopardy. What is at stake is the Ontario university system as we know it. In a very real way, as well, what is at stake is the future.